057
LIBRARY
FISH & WILDLIFE SERVICE
PACIFIC OCEANIC FISHERY
INVESTIGATIONS

PROCEEDINGS OF THE UNITED STATES NATIONAL MUSEUM

issued by the

SMITHSONIAN INSTITUTION
U. S. NATIONAL MUSEUM

Vol. 86 Washington: 1939 No. 3057

A NEW CAVE ISOPOD FROM FLORIDA

By James O. Maloney

From Horton H. Hobbs, of the University of Florida, the United States National Museum has received a large number of blind isopods from two localities: About 100 specimens from Dudley Cave, Gainesville, Alachua County, Fla., and 4 very small specimens from crayfish burrows at Blountstown, Calhoun County, Fla. They are all representatives of an undescribed species, which I take pleasure in naming for the collector.

Family ASELLIDAE

Genus ASELLUS Geoffroy Saint-Hilaire, 1764

As here considered, *Asellus* includes *Caecidotea* Packard, 1871. This is in accord with the consensus of opinion among most students of the fresh-water Isopoda.

ASELLUS HOBBSI, new species

Figure 52

Holotype.—A male specimen from Dudley Cave, Gainesville, Alachua County, Fla., measuring 9½ mm in length and 1¾ mm in width, has been selected as the holotype, U.S.N.M. no. 76434.

Description of holotype.—The body without antennae and uropods measures 9½ mm in length, 1¾ mm in width. Head deeply excavate, a little narrower than first thoracic segment, 1 mm long by 1½ mm wide. The thoracic segments are almost parallel; the first,

116510—39

sixth, and seventh segments are about equal in length and are a little longer than the second, third, fourth, and fifth segments, which are also about equal. Telson 2½ mm long by 2 mm wide. The uropods are as long as telson; peduncle is about 1½ times as long as inner joint, outer joint one-half as long as inner and narrower.

First pair of antennae has first peduncular joint broader and a little shorter than second, the third joint about one-half as long as second, and a flagellum of 8 articles. Apices of the fifth, sixth, and seventh joints of flagellum have club-shaped setae. The first antennae extend to the end of the fifth peduncular joint of the second antennae.

Second antenna about 7½ mm long: the peduncle 2 mm and the flagellum 5½ mm. There are approximately 69 joints in the flagellum. The first three peduncular segments are about equal in length and together are as long as the fourth segment. The fifth segment is a little longer than the fourth.

Left mandible with two sets of teeth, each series containing 4 teeth; right mandible has only one set, consisting of 4 teeth. The margin below teeth with 12 plumose setae on each of the mandibles.

Outer ramus of first maxilla with 11 teeth, the 5 innermost being serrate. The inner ramus has 5 long plumose setae.

Second maxilla consists of 3 lobes, the inner being triangular, the two outer ones squarish. Outer lobe has 20 long setae; center one 12 setae; and inner one 10 pronged setae, numerous long, slender hairs, and a few short, curved ones.

Inner plate of maxillipeds and second, third, fourth, and fifth articles of palp on inside, thickly fringed with long hairs.

The first pair of legs are subchelate, with a long, slender process and a shorter bifurcate one at distal end of propodus and 2 spines at proximal end. The inferior side of dactylus is furnished with a row of small spines. The carpus has 2 spines and 2 long hairs. The other legs are ambulatory.

Remarks.—Asellus hobbsi is closely related to *A. alabamensis* (Stafford) from which it differs chiefly in the proportions of the articles of the maxillipeds and in the armature of the propodus of the first pair of legs. The last two articles of the maxillipeds in *A. alabamensis* in their relative proportions are half the width of the same articles in *A. hobbsi.*

The propodus of the first pair of legs in *A. alabamensis* is armed with 2 triangular processes and 3 spines placed proximal to the processes. *A. hobbsi* is armed with 2 triangular processes and 2 spines placed proximal to the processes. Moreover, in *A. hobbsi* the distalmost of the two processes is bifurcate, whereas in the published figure of *A. alabamensis* the corresponding process appears simple.

The four small specimens from Blountstown, which were taken in crayfish burrows, are young of *A. hobbsi*. Any apparent differences between these specimens and the adults are of no greater magnitude than those ordinarily found between young and adults of related species.

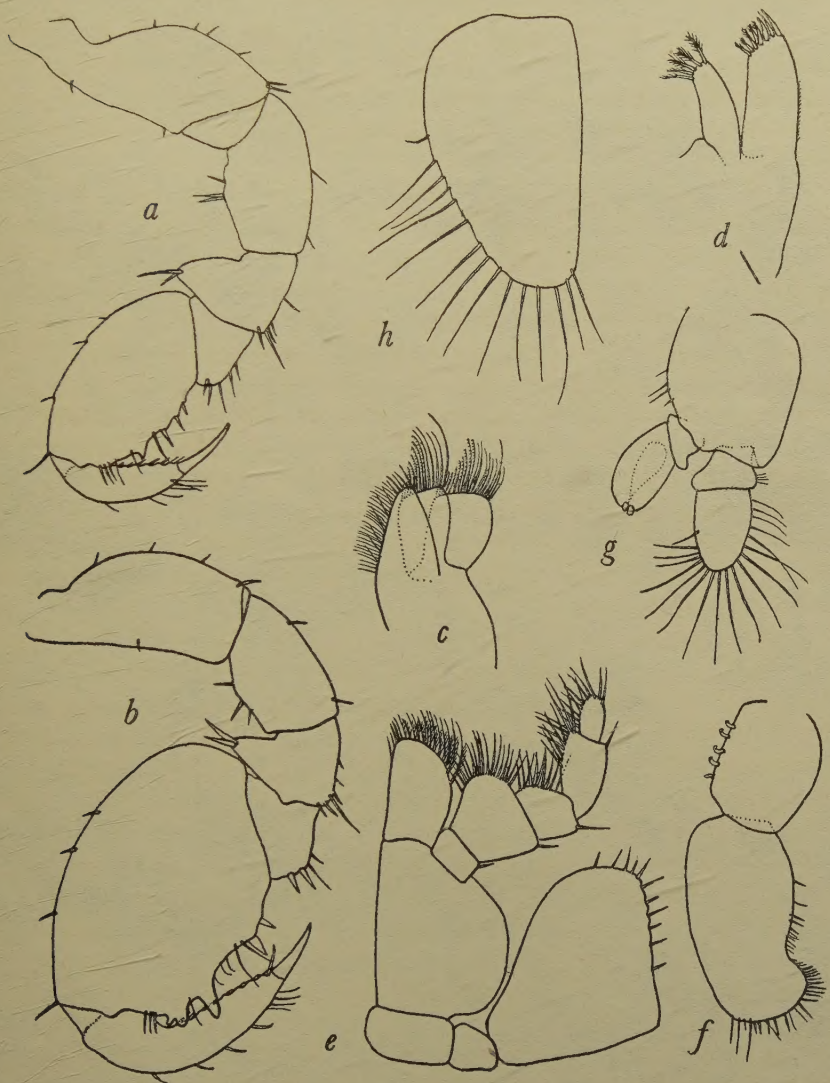

FIGURE 52.—*Asellus hobbsi*, new species: *a*, First leg of female; *b*, first leg of male; *c*, second maxilla; *d*, first maxilla; *e*, maxilliped; *f*, first pleopod of male; *g*, second pleopod of male; *h*, first pleopod of female.

U. S. GOVERNMENT PRINTING OFFICE: 1939